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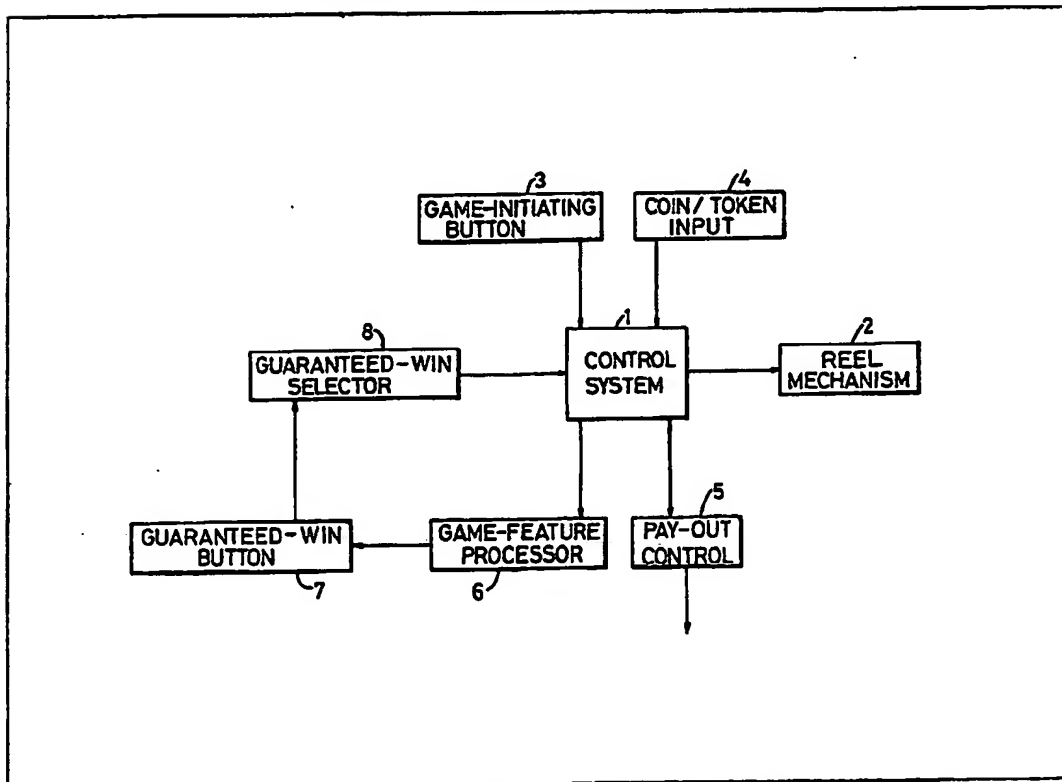
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(54) Game-playing machines

(57) A fruit machine comprises a control system 1 which supplies drive sig-

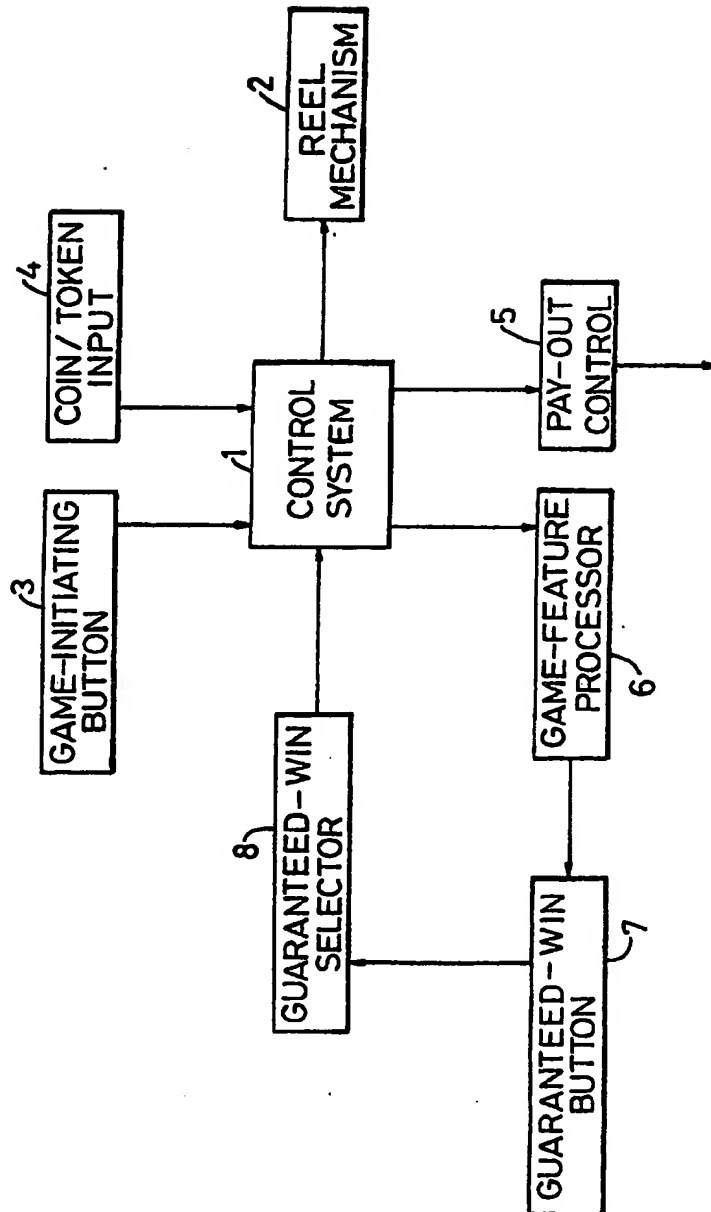
nals to a reel mechanism 2 in response to actuation of a game-initiating button 3 to cause the reels bearing fruit and other symbols to be spun and to come to rest with a combination of symbols in a viewing zone. If this combination is one of a number of possible winning combinations a prize may be awarded by a pay-out control 5 or alternatively a guaranteed-win feature may be made available to the player by a game-feature processor 6. This enables the player to gamble for a win of a higher value by depressing a guaranteed-win button 7. Depression of the button 7 causes a guaranteed-win selector 8 to select one of the possible winning combinations, and the control system 1 then causes the reels to be respun and to come to rest with the selected winning combination in the viewing zone. A prize, which may or may not higher than the prize which would otherwise have been obtained, is then awarded by the pay-out control 5.



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The drawing originally filed was informal and the print here reproduced is taken from a later filed formal copy.

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SPECIFICATION

Game-playing machines

5 This invention relates to game-playing machines, such as those known as "fruit machines".

Fruit machines conventionally incorporate three or more rotary members, such as reels or strips, disposed side-by-side and bearing symbols view-
10 able in a viewing zone, or a representation of such rotary members, referred to hereafter as "quasi-rotary members", on a video or projection screen. The symbols generally represent various fruits, although it will be understood that the term "fruit
15 machine" may be applied to machines having rotary members bearing symbols other than fruits. During a game the rotary members are spun or appear to be spun in response to actuation of a game-initiating button by a player after a coin, token or credit has
20 been paid into the machine, and the rotary members subsequently come to rest in random positions indicated by a combination of symbols in the viewing zone. Alternatively the machine may comprise display units, such as an array of lights,
25 adapted to display the symbols, and means for cyclically changing the symbols displayed by the units.

The combination of symbols visible in the viewing zone at the end of a game determines whether or not
30 a win is awarded or a special game feature, such as a "hold", "nudge" or "gamble", is given. A "gamble" feature generally enables a player to gamble a current win in an attempt to obtain a win of higher value. The presentation of the gamble is by a series
35 of sequentially flashing "win" and "lose" indicators and a stop button which, when pressed by the player, causes one of the indicators to remain lit. It is an object of the invention to provide a fruit machine with an improved "gamble" feature.

40 According to the invention there is provided a game-playing machine comprising a plurality of rotary or quasi-rotary members bearing symbols, or a plurality of display units adapted to display symbols and capable of being cycled to change the
45 symbols displayed, a game-initiating switch which, when actuated by a player, initiates a main game in which the rotary members are spun, or the display units are cycled, and come to rest with a combination of symbols in a viewing zone, win processing
50 means for determining whether the resulting combination of symbols is one of a plurality of possible winning combinations, pay-out means for awarding a prize or a game feature in the event of a winning result to the game, and a guaranteed-win game
55 feature which may be made available to the player after the main game has been played and which, on actuation by the player, causes one or more of the rotary members to be respun, or one or more of the display units to be recycled, such that the rotary
60 members or display units are guaranteed to come to rest with a winning combination of symbols in the viewing zone and causes a prize to be awarded by the pay-out means immediately the rotary members or display units have come to rest.

65 It will be appreciated therefore that a win will

always be obtained when the guaranteed-win feature is made available to the player and is actuated by the player. When the rotary members are respun or the display units recycled by actuating either the
70 game-initiating switch for a second time or a special subsidiary control, the rotary members or display units will automatically come to rest in a winning position which is selected from among the winning combinations available to the machine. The winning
75 combinations available as a result of this game feature may be restricted to preclude a "jackpot" for instance.

In a preferred embodiment the machine incorporates a programmed control system for supplying
80 the rotary members or display units with a drive signal to effect the necessary rotation or cycling, and for computing, from this drive signal and the known starting positions of the rotary members or display units, the stopping positions of the rotary members
85 or display units. The control system preferably incorporates a microprocessor and is of the type described in U.K. Patent Specification No. 1,550,732.

The guaranteed-win game feature may include a guaranteed-win selector which, when actuated,
90 serves to select a winning combination from among the possible winning combinations and causes a drive signal to be supplied to the rotary members or display units to effect the rotation or cycling necessary to display that winning combination in the
95 viewing zone. The winning combination can be selected entirely randomly or according to a particular weighting criterion, for example so as to move the rotary members or cycle the display units by the least aggregate amount, so as to move or cycle the
100 least number of rotary members or display units, so as to provide a win of higher value than a win resulting from the main game, or so as to restrict the pay-out.

The feature may be awarded randomly on the
105 basis of time elapsed or number of games played, as a result of the machine not having paid out recently in real time, or in response to a particular combination of symbols appearing in the viewing zone as a result of the main game. This particular combination
110 of symbols may itself be a winning combination, and the player may be given the option of accepting the win corresponding to this combination or gambling for a win of higher value.

In order that the invention may be more fully
115 understood, a fruit machine in accordance with the invention will now be described with reference to the accompanying drawing in which the single figure is a block diagram of the machine.

The illustrated machine comprises a control system 1 incorporating a microprocessor and arranged to supply drive signals to a reel mechanism 2
120 comprising four reels in response to actuation of a game-initiating button 3 by the player after a coin or token has been introduced into a coin/token input 4.
125 The drive signals cause the four reels bearing fruit and other symbols to be spun and to come to rest with a combination of symbols in a viewing zone. The control system 1 computes the final combination of symbols in the viewing zone from the known
130 starting positions of the reels and the drive signals,

and this combination is then compared to a plurality of possible winning combinations. A prize is generally awarded by a pay-out control 5 if a match is found with one of the possible winning combinations.

- 5 However, under certain conditions, for example on the basis of the number of games played or in response to a certain combination of symbols appearing within the viewing zone, a guaranteed-win feature may be made available to the player by a game-feature processor 6 instead of a prize. The guaranteed-win feature enables the player to gamble for a win of a higher value than he would otherwise have obtained by depressing a guaranteed-win button 7. Depression of the guaranteed-win button 7 causes a guaranteed-win selector 8 to select one of the possible winning combinations and the reel mechanism 2 is then driven by the control system 1 so as to cause the reels to be respun and to come to rest with the selected winning combination in the viewing zone. A prize is then awarded by the pay-out control 5 in the usual way and this prize may or may not be of a higher value than the prize which would have been obtained if the guaranteed-win feature had not been made available.
- 25 In a modification of the above-described machine the player may be given the option, when the guaranteed-win feature is awarded, of accepting the win already obtained or of gambling for a higher value win by operating the guaranteed-win button 7.

30 CLAIMS

1. A game-playing machine comprising a plurality of rotary or quasi-rotary members bearing symbols, or a plurality of display units adapted to display symbols and capable of being cycled to change the symbols displayed, a game-initiating switch which, when actuated by a player, initiates a main game in which the rotary members are spun, or the display units are cycled, and come to rest with a combination of symbols in a viewing zone, win processing means for determining whether the resulting combination of symbols is one of a plurality of possible winning combinations, pay-out means for awarding a prize or a game feature in the event of a winning result to the game, and a guaranteed-win game feature which may be made available to the player after the main game has been played and which, on actuation by the player, causes one or more of the rotary members to be respun, or one or more of the display units to be recycled, such that the rotary members or display units are guaranteed to come to rest with a winning combination of symbols in the viewing zone and causes a prize to be awarded by the pay-out means immediately the rotary members or display units have come to rest.

2. A game-playing machine according to claim 1, wherein it incorporates a programmed control system for supplying the rotary members or display units with a drive signal to effect the necessary rotation or cycling, and for computing, from this drive signal and the known starting positions of the rotary members or display units, the stopping positions of the rotary members or display units.

- 65 3. A game-playing machine according to claim 2,

wherein the guaranteed-win game feature includes a guaranteed-win selector which, when actuated, serves to select a winning combination from among the possible winning combinations and causes a drive signal to be supplied to the rotary members or display units to effect the rotation or cycling necessary to display that winning combination in the viewing zone.

4. A game-playing machine according to claim 3, wherein the guaranteed-win selector is adapted to select the winning combination randomly.

5. A game-playing machine according to claim 3, wherein the guaranteed-win selector is adapted to select the winning combination according to a particular weighting criterion.

6. A game-playing machine according to any preceding claim, wherein the guaranteed-win game feature includes a game-feature processor for awarding the feature on the basis of the number of games played or as a result of the machine not having paid out recently in real time.

7. A game-playing machine according to any one of claims 1 to 6, wherein the guaranteed-win game feature includes a game-feature processor for awarding the feature in response to a particular combination of symbols appearing in the viewing zone as a result of the main game.

8. A game-playing machine according to claim 7, wherein the game-feature processor is adapted to award the feature in response to a winning combination of symbols appearing in the viewing zone as a result of the main game so as to enable the player to gamble for a win of a higher value.

9. A game-playing machine substantially as hereinbefore described with reference to the accompanying drawing.

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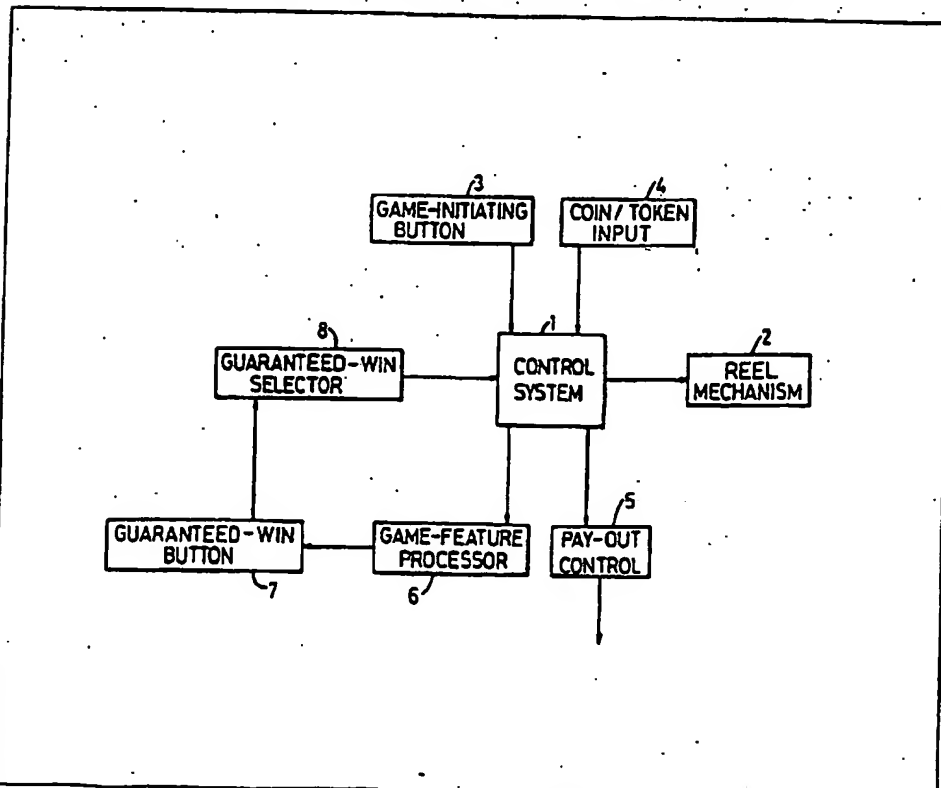
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(58) Field of search
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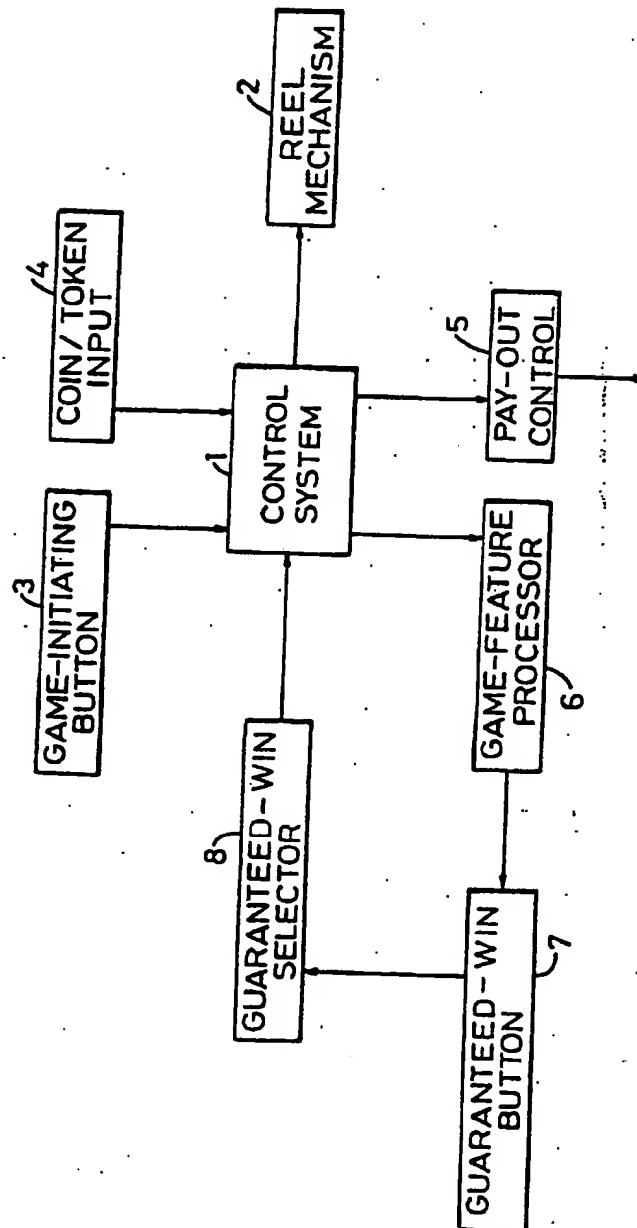
nals to a reel mechanism 2 in response to actuation of a game-initiating button 3 to cause the reels bearing fruit and other symbols to be spun and to come to rest with a combination of symbols in a viewing zone. If this combination is one of a number of possible winning combinations a prize may be awarded by a pay-out control 5 or alternatively a guaranteed-win feature may be made available to the player by a game-feature processor 6. This enables the player to gamble for a win of a higher value by depressing a guaranteed-win button 7. Depression of the button 7 causes a guaranteed-win selector 8 to select one of the possible winning combinations, and the control system 1 then causes the reels to be respun and to come to rest with the selected winning combination in the viewing zone. A prize, which may or may not higher than the prize which would otherwise have been obtained, is then awarded by the pay-out control 5.



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The combination of symbols visible in the viewing zone at the end of a game determines whether or not
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 50 tion of symbols in a viewing zone, win processing means for determining whether the resulting combination of symbols is one of a plurality of possible winning combinations, pay-out means for awarding a prize or a game feature in the event of a winning
 55 result to the game, and a guaranteed-win game feature which may be made available to the player after the main game has been played and which, on actuation by the player, causes one or more of the
 60 rotary members to be respun, or one or more of the display units to be recycled, such that the rotary members or display units are guaranteed to come to rest with a winning combination of symbols in the viewing zone and causes a prize to be awarded by the pay-out means immediately the rotary members

always be obtained when the guaranteed-win feature is made available to the player and is actuated by the player. When the rotary members are respun or the display units recycled by actuating either the
 70 game-initiating switch for a second time or a special subsidiary control, the rotary members or display units will automatically come to rest in a winning position which is selected from among the winning combinations available to the machine. The winning
 75 combinations available as a result of this game feature may be restricted to preclude a "jackpot" for instance.

In a preferred embodiment the machine incorporates a programmed control system for supplying the rotary members or display units with a drive
 80 signal to effect the necessary rotation or cycling, and for computing, from this drive signal and the known starting positions of the rotary members or display units, the stopping positions of the rotary members
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and this combination is then compared to a plurality of possible winning combinations. A prize is generally awarded by a pay-out control 5 if a match is found with one of the possible winning combinations.

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15 button 7 causes a guaranteed-win selector 8 to select one of the possible winning combinations and the reel mechanism 2 is then driven by the control system 1 so as to cause the reels to be respun and to come to rest with the selected winning combination
20 in the viewing zone. A prize is then awarded by the pay-out control 5 in the usual way and this prize may or may not be of a higher value than the prize which would have been obtained if the guaranteed-win feature had not been made available.
- 25 In a modification of the above-described machine the player may be given the option, when the guaranteed-win feature is awarded, of accepting the win already obtained or of gambling for a higher value win by operating the guarantee-win button 7.

30 CLAIMS

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35 symbols and capable of being cycled to change the symbols displayed, a game-initiating switch which, when actuated by a player, initiates a main game in which the rotary members are spun, or the display
40 units are cycled, and come to rest with a combination of symbols in a viewing zone, win processing means for determining whether the resulting combination of symbols is one of a plurality of possible winning combinations, pay-out means for awarding
45 a prize or a game feature in the event of a winning result to the game, and a guaranteed-win game feature which may be made available to the player after the main game has been played and which, on actuation by the player, causes one or more of the
50 rotary members to be respun, or one or more of the display units to be recycled, such that the rotary members or display units are guaranteed to come to rest with a winning combination of symbols in the viewing zone and causes a prize to be awarded by
55 the pay-out means immediately the rotary members or display units have come to rest.

2. A game-playing machine according to claim 1, wherein it incorporates a programmed control system for supplying the rotary members or display
60 units with a drive signal to effect the necessary rotation or cycling, and for computing, from this drive signal and the known starting positions of the rotary members or display units, the stopping posi-

wherein the guaranteed-win game feature includes a guaranteed-win selector which, when actuated, serves to select a winning combination from among the possible winning combinations and causes a
70 drive signal to be supplied to the rotary members or display units to effect the rotation or cycling necessary to display that winning combination in the viewing zone.

4. A game-playing machine according to claim 3, wherein the guaranteed-win selector is adapted to select the winning combination randomly.

5. A game-playing machine according to claim 3, wherein the guaranteed-win selector is adapted to select the winning combination according to a
80 particular weighting criterion.

6. A game-playing machine according to any preceding claim, wherein the guaranteed-win game feature includes a game-feature processor for awarding the feature on the basis of the number of
85 games played or as a result of the machine not having paid out recently in real time.

7. A game-playing machine according to any one of claims 1 to 5, wherein the guaranteed-win game feature includes a game-feature processor for
90 awarding the feature in response to a particular combination of symbols appearing in the viewing zone as a result of the main game.

8. A game-playing machine according to claim 7, wherein the game-feature processor is adapted to
95 award the feature in response to a winning combination of symbols appearing in the viewing zone as a result of the main game so as to enable the player to gamble for a win of a higher value.

9. A game-playing machine substantially as hereinbefore described with reference to the accompanying drawing.